REMARKS

These Remarks are in reply to the final Office Action mailed October 28, 2008. Claims 1, 2, 5-12, 15, 16 and 19-26 were pending in the Application prior to the outstanding Office Action. Claim 1, 5, 8, 10, 11, 20 and 22 are currently being amended, and new claims 27-29 are being added. No claims are currently being canceled (claims 3-4, 13-14 and 17-18 were previously canceled). Support for the amendment and new claims is provided explicitly and/or inherently in the application as originally filed, and thus, no new matter has been added. Accordingly, claims 1-2, 5-12, 15-16 and 19-29 remain pending for the Examiner's consideration, with claims 1, 10 and 22 being independent. Applicants respectfully request that the outstanding rejections be reconsidered and withdrawn in view of the above amendments and the remarks below.

I. Summary of Prior Art Claim Rejections

Claims 1, 2, 7, 10-14, 19, 22 and 23 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,319,584 to Ooyabu (hereafter referred to as "Ooyabu") in view of U.S. Patent No. 5,471,411 to Adams et al. (hereafter referred to as "Adams") and further in view of U.S. Patent No. 4,727,505 to Konishi et al. (hereafter referred to as "Konishi").

Claims 5, 6, 15 and 16 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Ooyabu in view of Adams and Konishi and further in view of U.S. Patent No. 5, 928,313 to Thompson (hereafter referred to as "Thompson").

Claims 8, 9, 20 and 21 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Ooyabu in view of Adams and Konishi and further in view of U.S. Patent No. 6,411,333 to Auld et al. (hereafter referred to as "Auld").

(a discussion of the claims begins on the next page)

II. Discussion of the Claims

Claim 1, as amended, is reproduced below for the convenience of the Examiner.

1. (Currently Amended) A method comprising:

storing a plurality of independent sets of filter coefficients in a memory, wherein each set of filter coefficients defines a different polyphase filter function, wherein each of the different polyphase filter functions would result in at least some modifying of a signal if the signal were filtered in accordance with the polyphase filter function, and wherein each of the different polyphase filter functions would result in modifying of a signal in a different manner than the other polyphase filter functions;

selecting ~~a first~~ one of the sets of filter coefficients;

interpolating the ~~first~~ selected set of filter coefficients to thereby produce interpolated selected filter coefficients; and

convolving the interpolated ~~first~~ selected filter coefficients with an input signal to produce a filtered output signal that differs from the input signal regardless of which one of the sets of filter coefficients is selected.

Claim 1, as amended, includes the steps of "storing a plurality of independent sets of filter coefficients in a memory, wherein each set of filter coefficients defines a different polyphase filter function, wherein each of the different polyphase filter functions would result in at least some modifying of a signal if the signal were filtered in accordance with the polyphase filter function, and wherein each of the different polyphase filter functions would result in modifying of a signal in a different manner than the other polyphase filter functions" and "selecting one of the sets of filter coefficients".

In the Office Action, it had been asserted that Ooyabu taught the storing and selecting steps of claim 1 (prior to the current amendment). As described at column 2, lines 3-13, and column 5, lines 1-15 of Ooyabu, Ooyabu stores two sets of filter coefficients, one of which is selected based on whether or not the input audio signal has been pre-emphasized. As explained at column 3, lines 45-56, when a decision unit 19

determines the existence of pre-emphasis, the K2 set of coefficients are selected, which causes de-emphasis. On the other hand, as explained at column 3, line 57 – column 4, line 18, when the decision unit 19 determines that there was no-pre-emphasis, the K1 set of coefficients are selected (which are -1, 0 and 0), which causes the filter to function as a filter whose gain is 0 dB and whose frequency characteristics are flat, as shown in FIG. 7 (which is essentially equivalent to bypassing the filter). In summary, Ooyabu stores a first set of filter coefficients K1 that that are used to de-emphasize any pre-emphasis that may have occurred, and a second set of filter coefficients K2 that is essentially equivalent to bypassing the filter. Thus, only when the set of filter coefficients K1 is selected, is there modification to a signal, because when the second set of filter coefficients K2 is selected the signal is simply passed through the filter without any modification (also see column 2, lines 9-13 of Ooyabu).

Further, claim 1, as amended, specifies that each of the independent sets of filter coefficients that are stored defines a different polyphase filter function. Ooyabu does not teach this feature. Further, none of the other references cited in the Office Action teach or suggest "storing a plurality of independent sets of filter coefficients in a memory, wherein each set of filter coefficients defines a different polyphase filter function, wherein each of the different polyphase filter functions would result in at least some modifying of a signal if the signal were filtered in accordance with the polyphase filter function, and wherein each of the different polyphase filter functions would result in modifying of a signal in a different manner than the other polyphase filter functions".

Claim 1, as amended, also specifies the step of "convolving the interpolated selected filter coefficients with an input signal to produce a filtered output signal that differs from the input signal regardless of which one of the sets of filter coefficients is selected". Applicants do not agree with the assertion that Ooyabu can be combined with Adams and Konishi in the manner suggested in the Office Action. However, if for arguments sake Ooyabu, Adams and Konishi were combined in the suggested manner, the combination would still not produce a filtered output signal (produced by convolving the interpolated selected filter coefficients with an input signal) that differs from the input signal regardless of which one of the sets of filter coefficients is selected, because, as

explained above, in Ooyabu, when the second set of filter coefficients K2 is selected the signal is simply passed through the filter without any modification.

For at least the reasons specified above, Applicants respectfully request that the 103(a) rejection of claim 1 be reconsidered and withdrawn.

Claims 2, 5-9 and 24 depend from and add additional features to claim 1. Applicants respectfully assert that these claims are patentable for at least the reason that they depend from claim 1, as well as for the features that they add.

Claim 10, as amended, is believed to be patentable over the cited references for similar reasons to at least some of the reasons discussed above with regards to claim 1. Accordingly, Applicants respectfully request that the rejection of claim 10 be reconsidered and withdrawn.

Claims 11, 12, 15, 16, 19-21 and 25 depend from and add additional features to claim 1. Applicants respectfully assert that these claims are patentable for at least the reason that they depend from claim 10, as well as for the features that they add. For example, **claim 11**, as amended, requires "a convolution engine coupled to the coefficient interpolator and configured to convolve an input signal with interpolated coefficients corresponding to the selected one of the sets of filter coefficients to produce an output signal that differs from the input signal regardless of which one of the sets of filter coefficients is selected. For similar reasons to those discussed above with regards to the convolving step of claim 1, Applicants respectfully assert that the combination of cited references suggested in the Office Action do not teach or suggest the convolution engine of claim 11.

Claim 22, as amended, is believed to be patentable over the cited references for similar reasons to those discussed above with regards to claim 1. Accordingly, Applicants request that the rejection of claim 22 be reconsidered and withdrawn.

Claims 23 and 26 depend from and add additional features to claim 22. Applicants respectfully assert that these claims are patentable for at least the reason that they depend from claim 22, as well as for the features that they add.

New dependent claims 27-29 have been added to further highlight differences between claimed embodiments and the cited references. Applicants respectfully request that these new claims be considered and allowed.

III. Conclusion

In light of the above, it is respectfully requested that all outstanding rejections be reconsidered and withdrawn. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

The Commissioner is authorized to charge the required fees and any underpayment of fees or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this reply, including any fee for extension of time, which may be required.

Respectfully submitted,

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